

FIG. 1

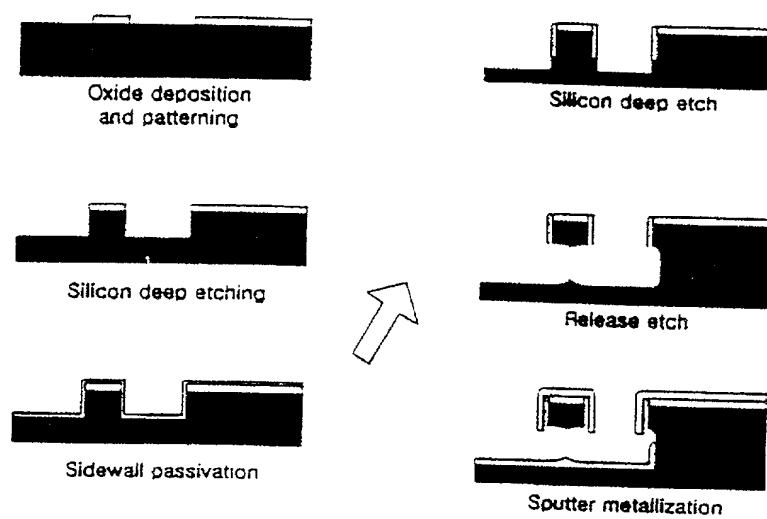


FIG. 2

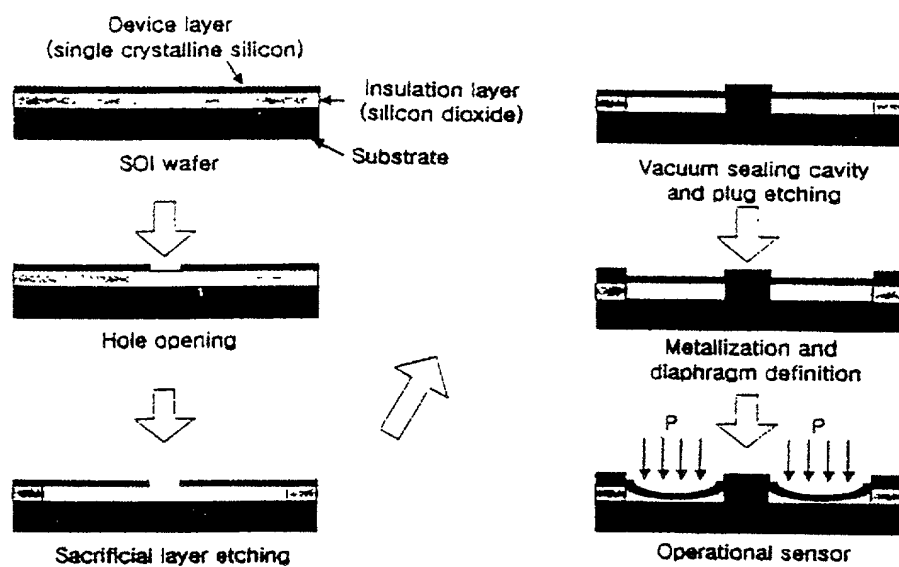


FIG. 3

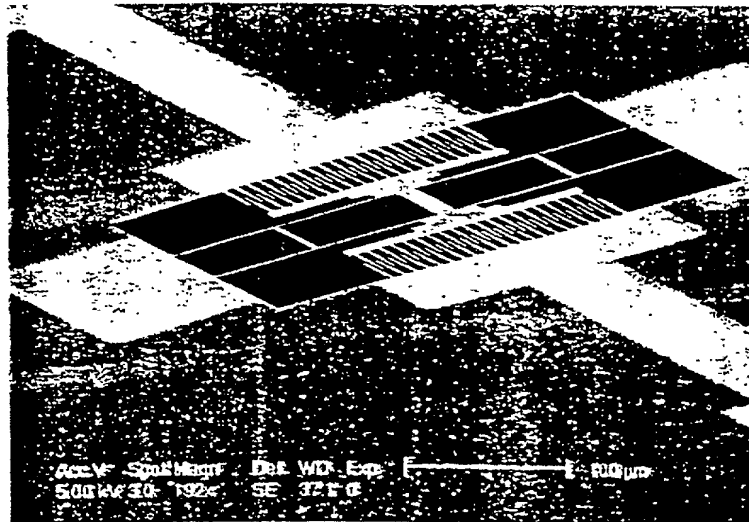


FIG. 4

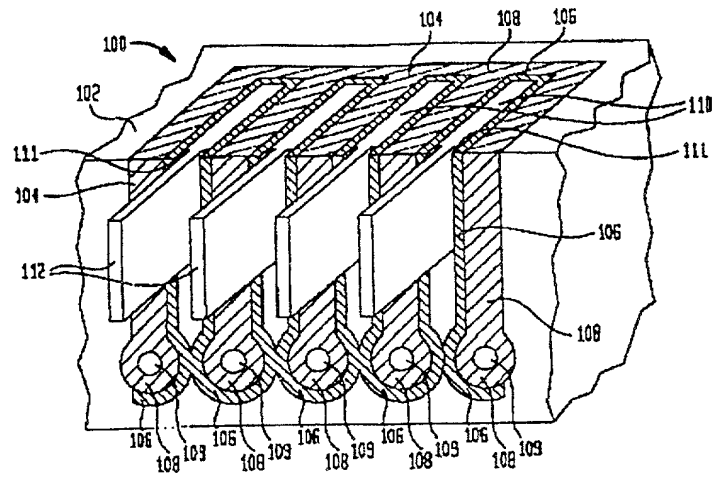
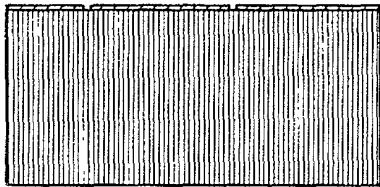
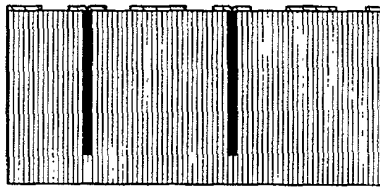


FIG. 4

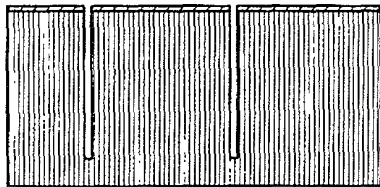
FIG. 5



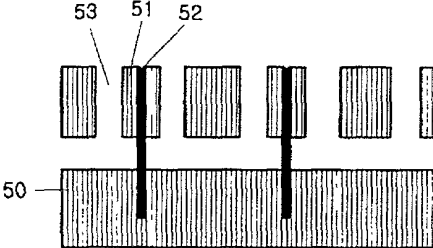
First etch mask deposition and patterning



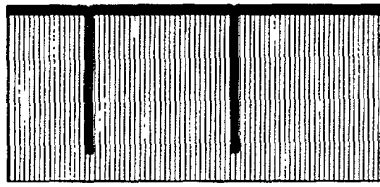
Second etch mask deposition and patterning



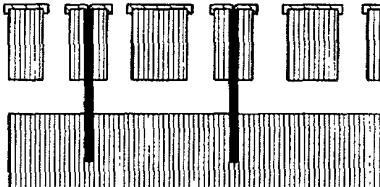
Deep silicon etching to form trenches



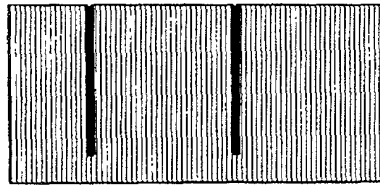
Structure fabrication



Trench filling by oxidation



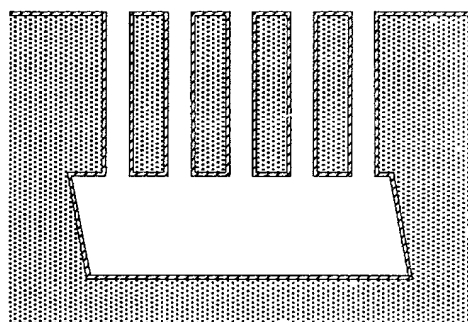
Metallization



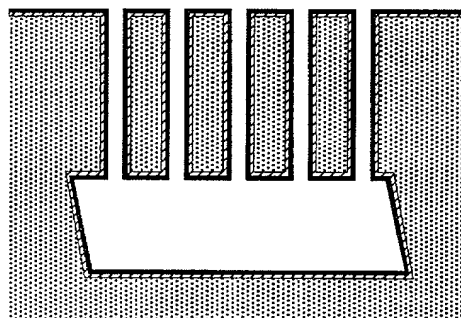
Top oxide removal



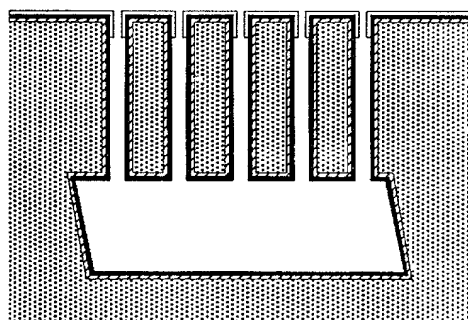
FIG. 6



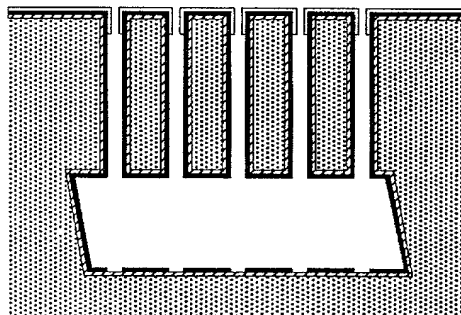
(a)



(b)



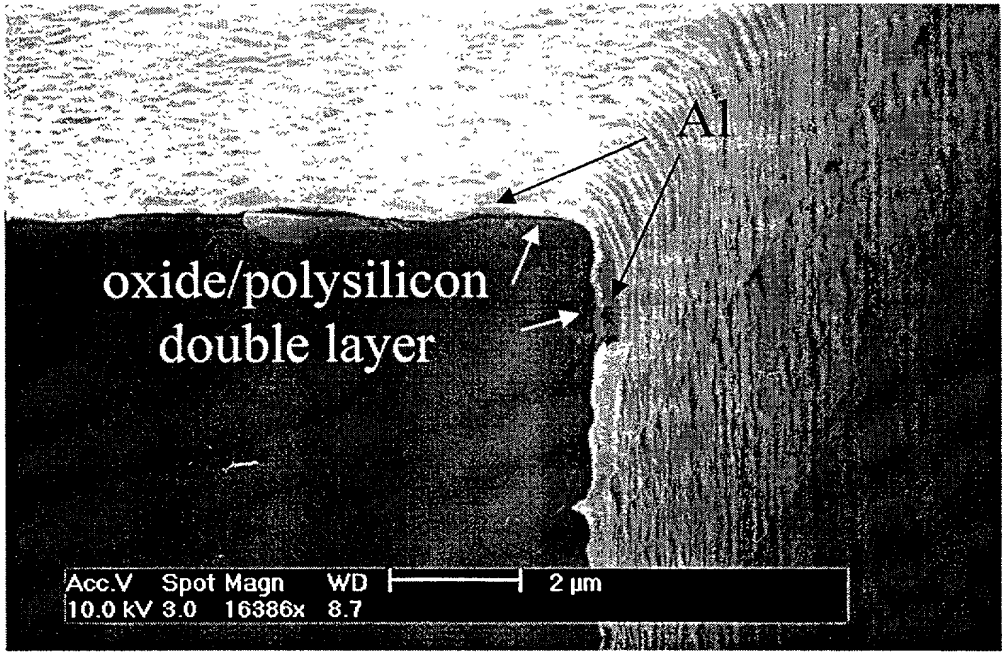
(c)



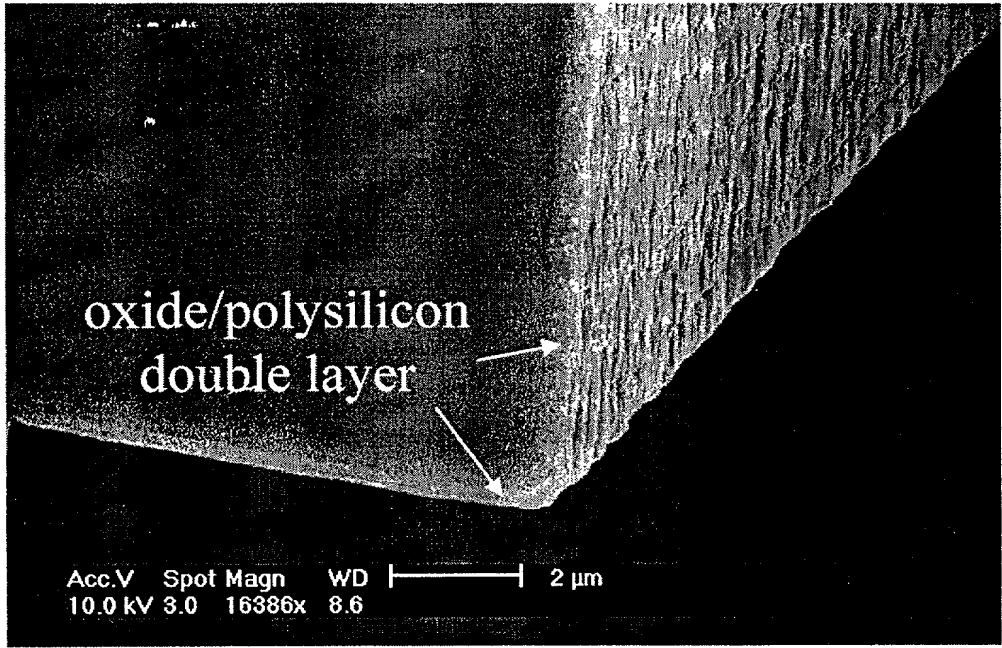
(d)



FIG. 7



(a)



(b)

FIG. 8

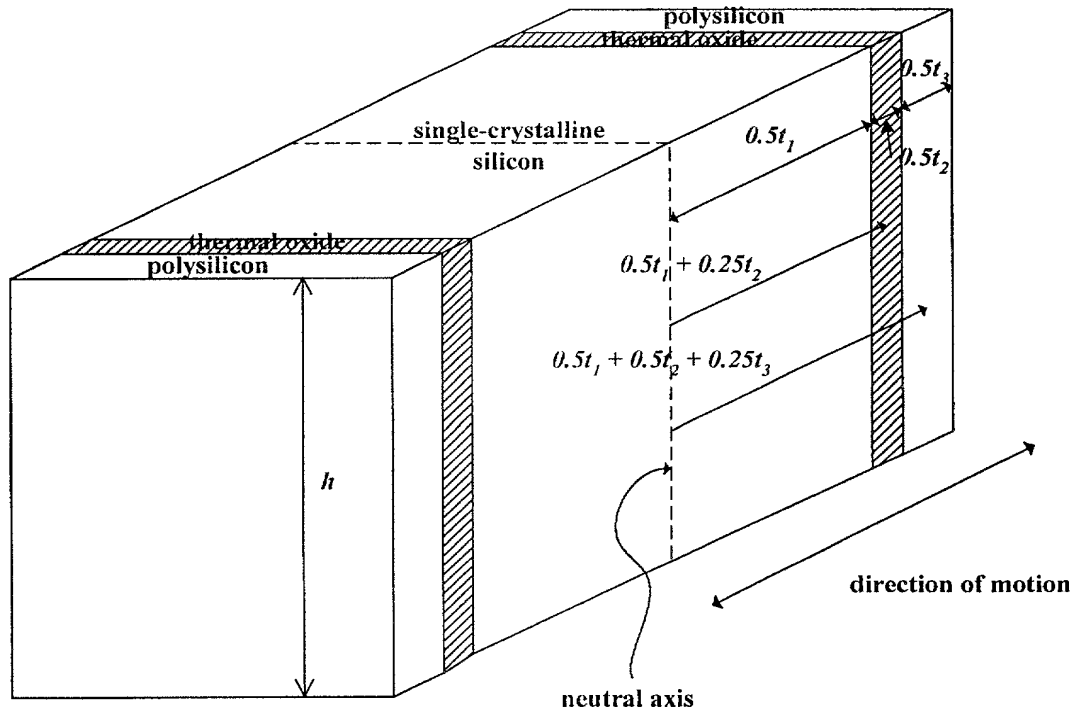


FIG. 9

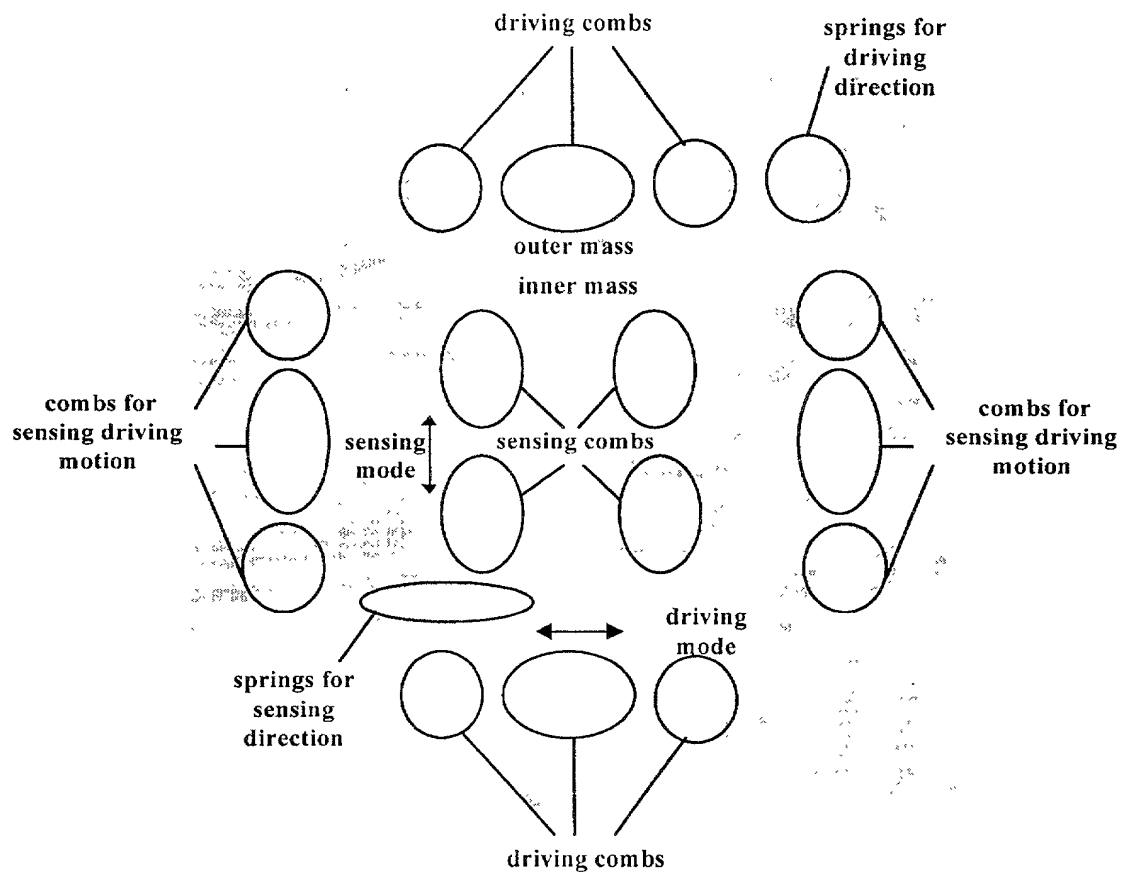


FIG. 10

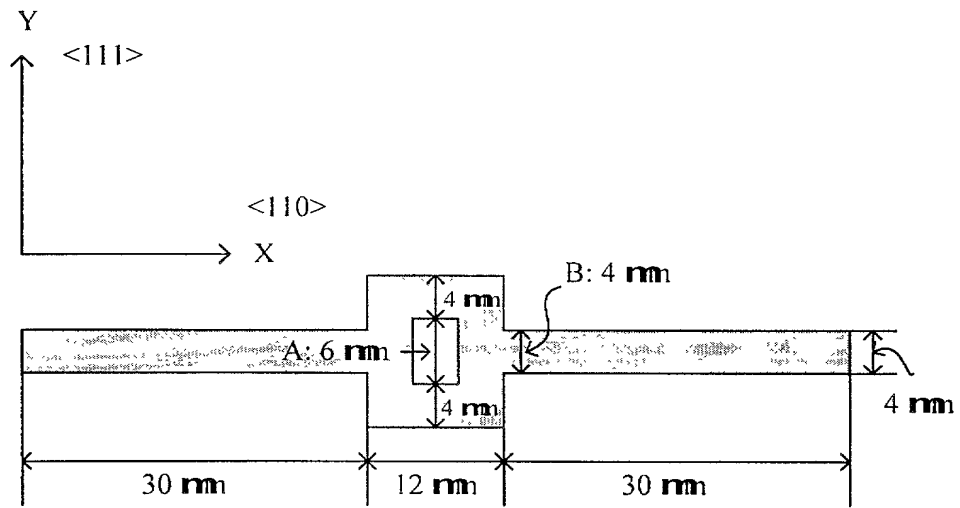


FIG. 11

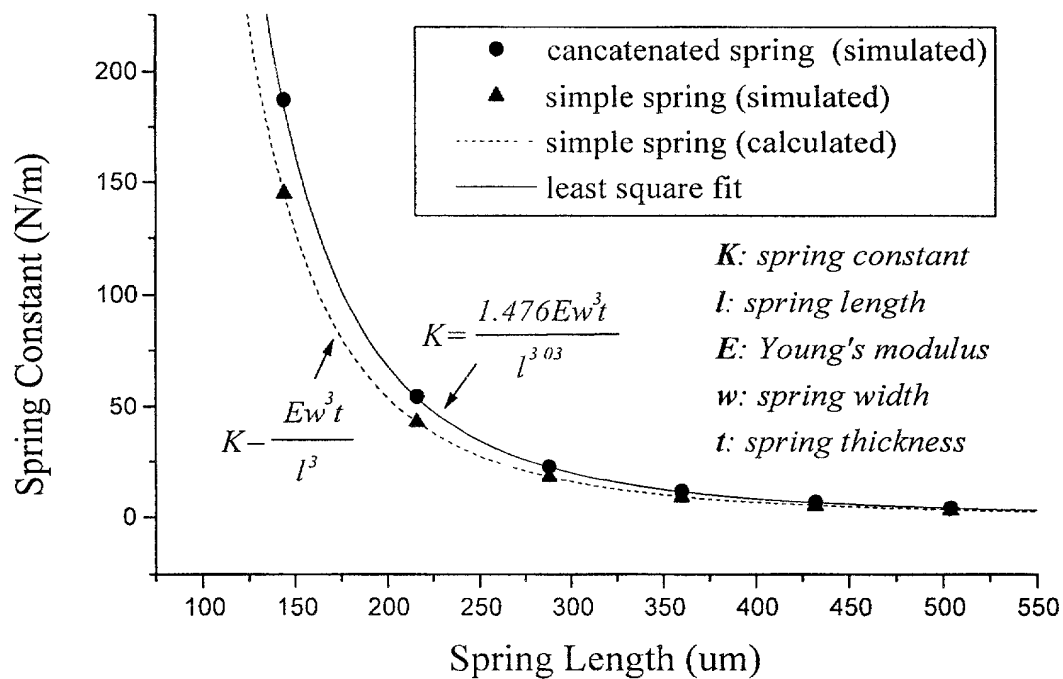
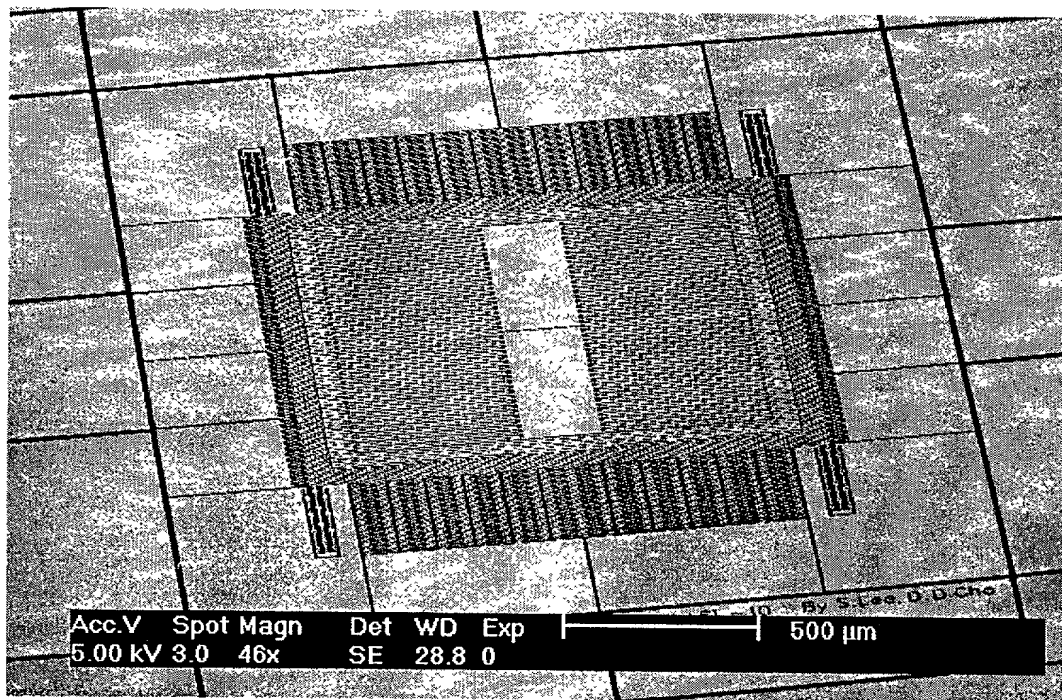
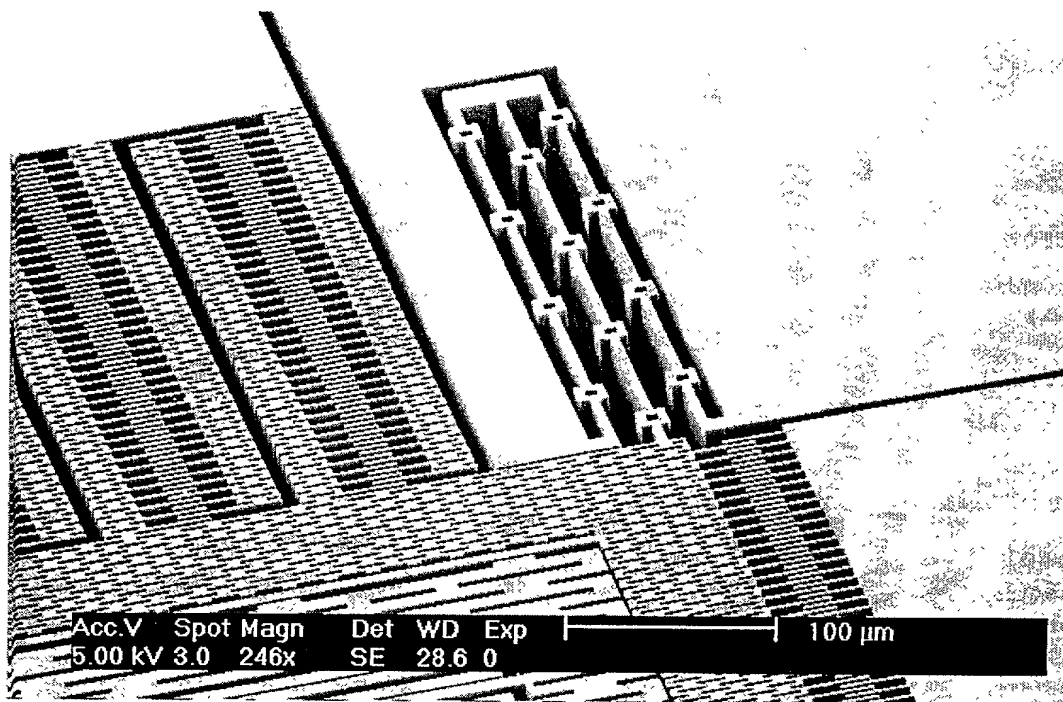


FIG. 12



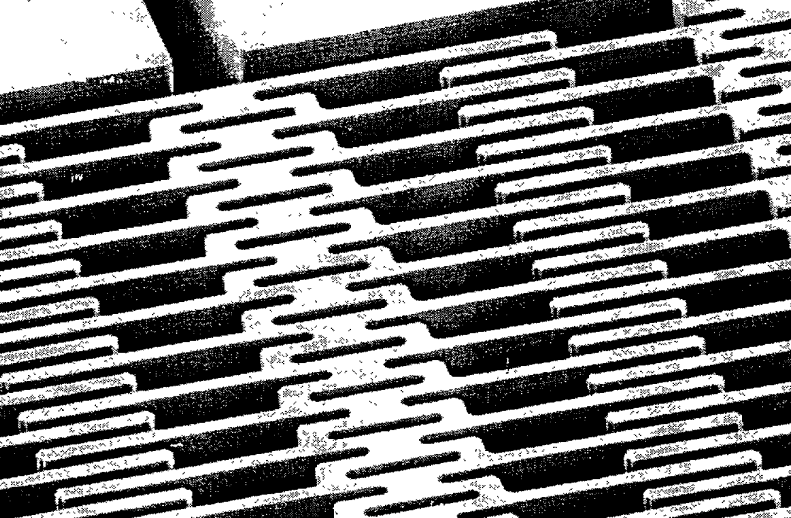
(a)



(b)

Acc.V Spot Magn Det WD Exp
5.00 kV 3.0 983x SE 28.7 0

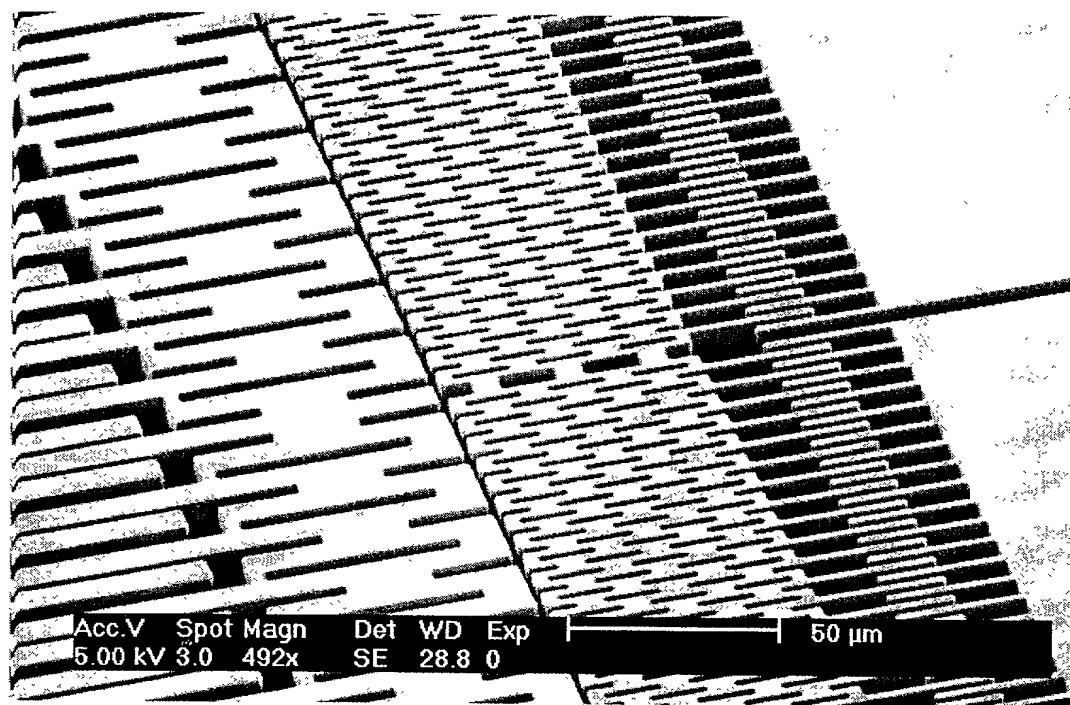
20 μm



Acc.V Spot Magn Det WD Exp |-----| 20 μ m
5.00 kV 3.0 983x SE 28.8 0

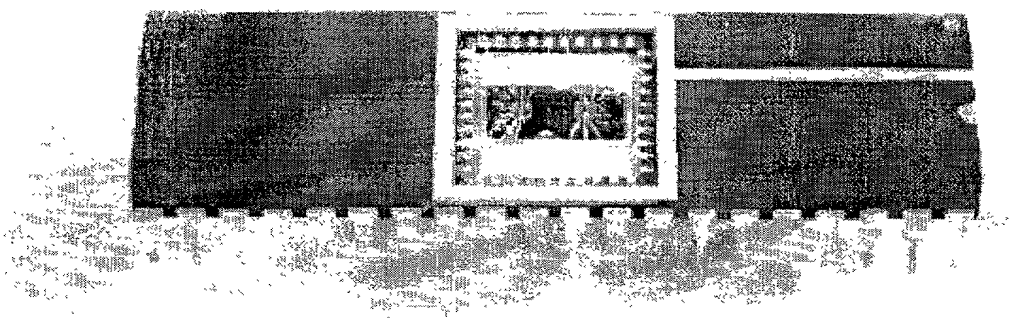
(d)

00003880.07403



(e)

FIG. 13



FOOTAGE 082E0660

FIG. 14

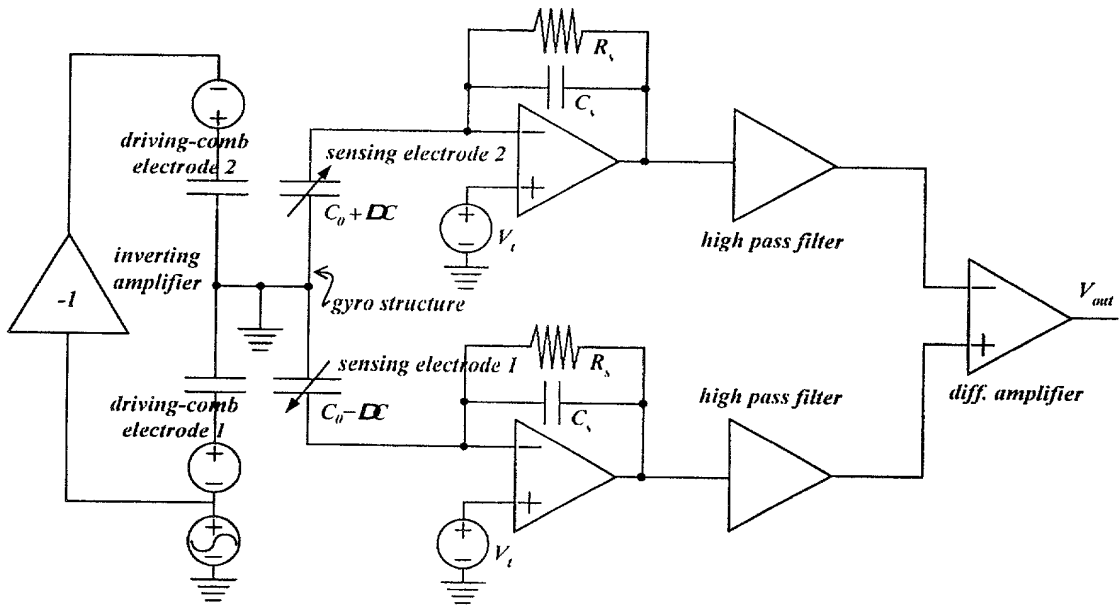


FIG. 15

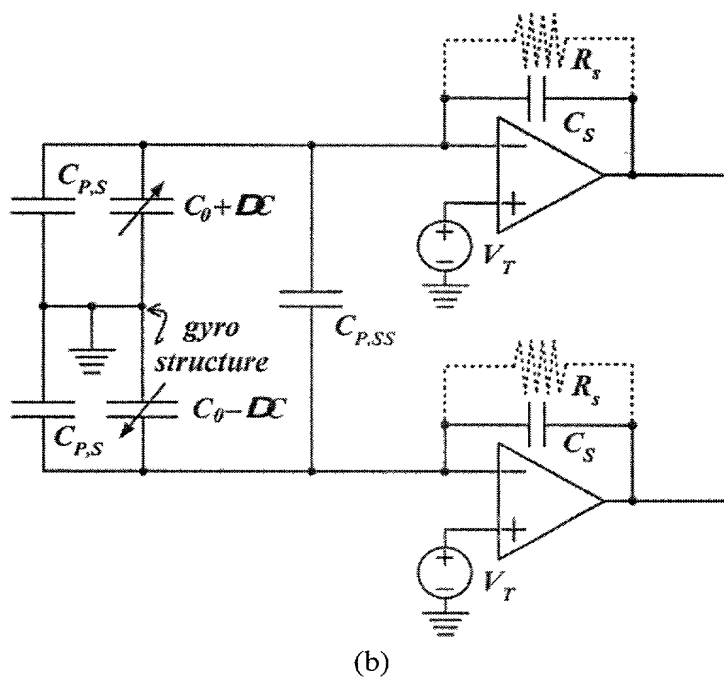
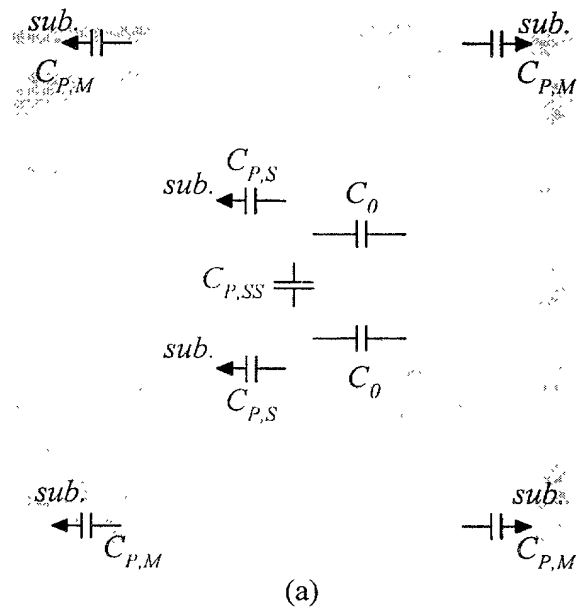
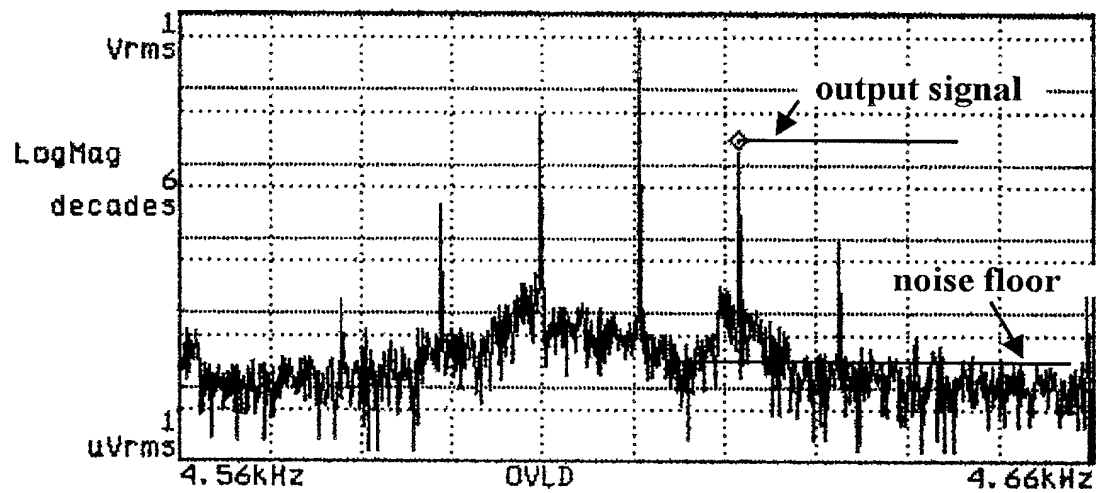


FIG. 16



(Y-axis corresponds to the root mean square voltage in Log-scale.)

FIG. 17

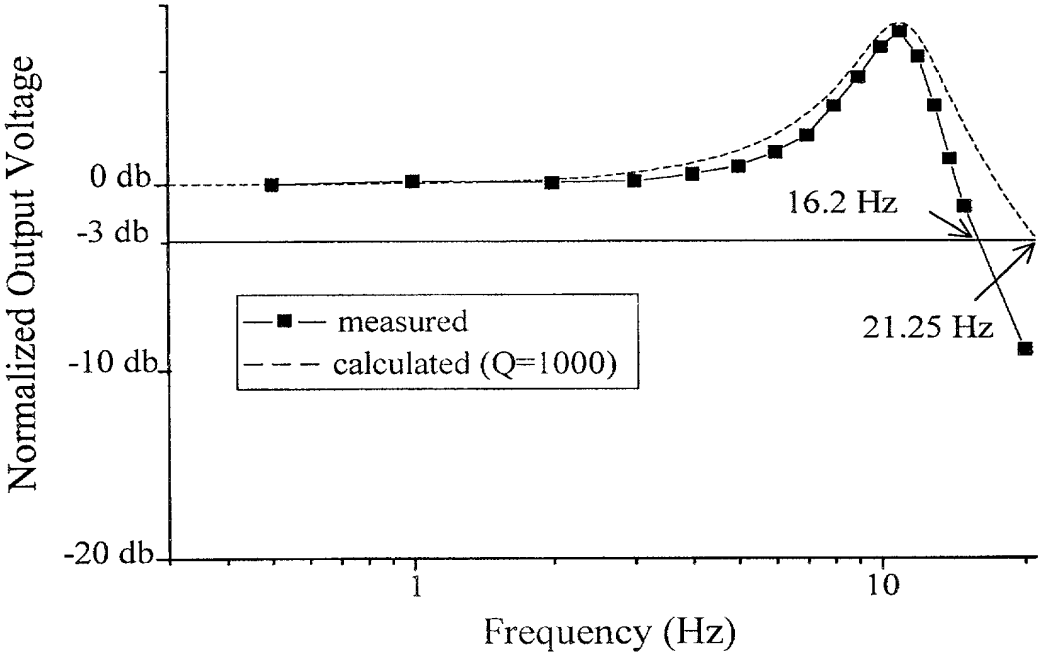


FIG. 18

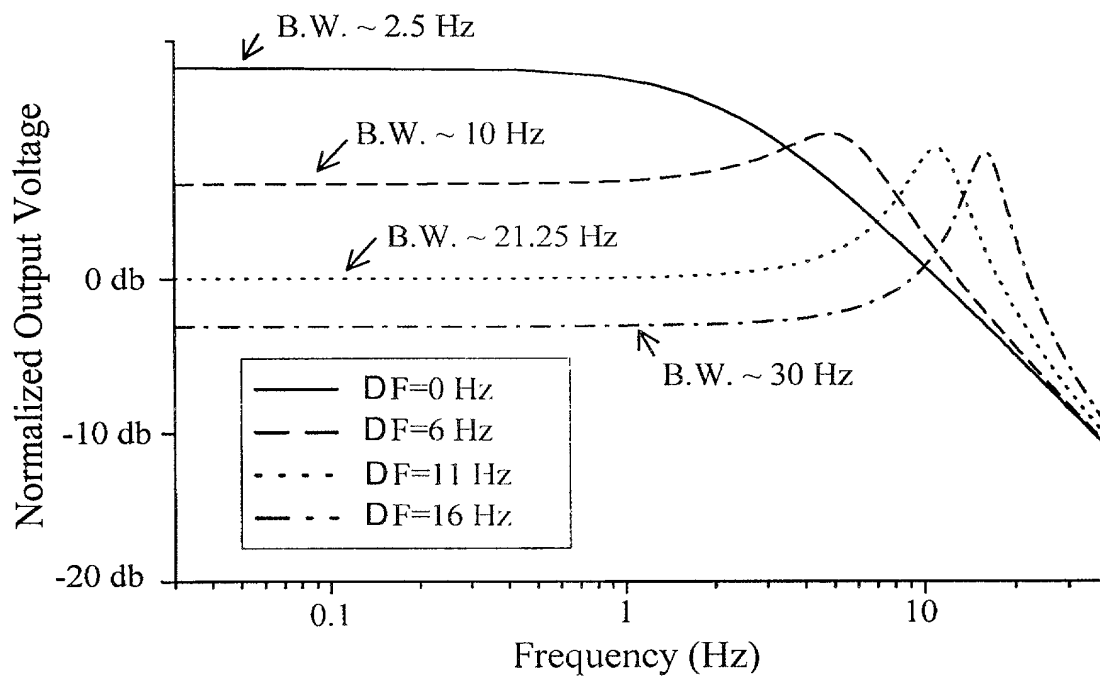


FIG. 19

